

10/501196

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## SEQUENCE LISTING

<110> NEW ENGLAND BIOLABS, INC.  
SAMUELSON, JAMES  
XU, SHUANG-YONG

<120> ALTERATION OF RESTRICTION ENDONUCLEASE SPECIFICITY BY GENETIC SELECTION

<130> NEB-198-PCT

<150> US 60/347,403

<151> 2002-01-10

<160> 2

<170> PatentIn version 3.1

<210> 1

<211> 612

<212> DNA

<213> Bacillus stearothermophilus Y406

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<221> CDS

<222> (1)..(612)

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caa gtt cac ttg cca cat att tgg gaa gaa att caa gaa att att gtt	96
Gln Val His Leu Pro His Ile Trp Glu Glu Ile Gln Glu Ile Ile Val	
20 25 30	
tct att gac gca gaa gct tgt aga acg aag gaa tca aaa gaa aag aca	144
Ser Ile Asp Ala Glu Ala Cys Arg Thr Lys Glu Ser Lys Glu Lys Thr	
35 40 45	
aaa caa gga caa ata ctt tat agt ccc gta gct tta aat gaa gca ttc	192
Lys Gln Gly Gln Ile Leu Tyr Ser Pro Val Ala Leu Asn Glu Ala Phe	
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aag gaa aaa tta gaa gca aaa ggt tgg aaa gaa agt cga aca aac tat	240
Lys Glu Lys Leu Glu Ala Lys Gly Trp Lys Glu Ser Arg Thr Asn Tyr	
65 70 75 80	
tat gtg act gct gac cca aag ctg att cgt gaa aca tta tca ctt gaa	288
Tyr Val Thr Ala Asp Pro Lys Leu Ile Arg Glu Thr Leu Ser Leu Glu	
85 90 95	
cca gag gaa caa aag aaa gtg att gaa gcc gca gga aaa gaa gca tta	336
Pro Glu Glu Gln Lys Lys Val Ile Glu Ala Ala Gly Lys Glu Ala Leu	
100 105 110	
aag tct tat aat caa acg gat ttt gta aaa gat aga gtg gca ata gaa	384
Lys Ser Tyr Asn Gln Thr Asp Phe Val Lys Asp Arg Val Ala Ile Glu	
115 120 125	
gtt caa ttc gga aaa tat tct ttt gtc gct tat gac ctt ttc gtc aaa	432
Val Gln Phe Gly Lys Tyr Ser Phe Val Ala Tyr Asp Leu Phe Val Lys	
130 135 140	
cac atg gct ttc tat gtt agt gat aaa att gac gtt ggt gtc gaa ata	480
His Met Ala Phe Tyr Val Ser Asp Lys Ile Asp Val Gly Val Glu Ile	

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145              150              155              160
ttg cca atg aag gaa tta tca aaa gaa atg tct tcg gga atc agt tat      528
Leu Pro Met Lys Glu Leu Ser Lys Glu Met Ser Ser Gly Ile Ser Tyr
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tac gaa ggt gaa tta tac aat gtg ata cgg caa ggt cgt ggc gtt cct      576
Tyr Glu Gly Glu Leu Tyr Asn Val Ile Arg Gln Gly Arg Gly Val Pro
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gcc gtt ccg ttg gtt tta atc ggg att gcc cct taa      612
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Ser Ile Asp Ala Glu Ala Cys Arg Thr Lys Glu Ser Lys Glu Lys Thr
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Lys Gln Gly Gln Ile Leu Tyr Ser Pro Val Ala Leu Asn Glu Ala Phe
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Lys Glu Lys Leu Glu Ala Lys Gly Trp Lys Glu Ser Arg Thr Asn Tyr
65              70              75              80

Tyr Val Thr Ala Asp Pro Lys Leu Ile Arg Glu Thr Leu Ser Leu Glu
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Pro Glu Glu Gln Lys Lys Val Ile Glu Ala Ala Gly Lys Glu Ala Leu
100             105             110

Lys Ser Tyr Asn Gln Thr Asp Phe Val Lys Asp Arg Val Ala Ile Glu
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Val Gln Phe Gly Lys Tyr Ser Phe Val Ala Tyr Asp Leu Phe Val Lys
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His Met Ala Phe Tyr Val Ser Asp Lys Ile Asp Val Gly Val Glu Ile
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Leu Pro Met Lys Glu Leu Ser Lys Glu Met Ser Ser Gly Ile Ser Tyr
165             170             175

Tyr Glu Gly Glu Leu Tyr Asn Val Ile Arg Gln Gly Arg Gly Val Pro

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180

185

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Ala Val Pro Leu Val Leu Ile Gly Ile Ala Pro  
195 200